

DEUEL VOCATIONAL INSTITUTION

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September 19, 2008

Kenneth Landau
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SUBJECT: California Department of Corrections and Rehabilitation, Deuel Vocational Institution, Wastewater Treatment Plant NPDES Permit Renewal – Comments in Response to the Tentative Draft Order.

Dear Mr. Landau:

The California Department of Corrections and Rehabilitation (CDCR) and the Deuel Vocational Institution (DVI) appreciate the opportunity to provide comments on the Tentative Draft Waste Discharge Requirements Order No. R5-2008-XXXX, NPDES Permit No. CA0078093. We respectfully submit the following:

Proposed Basin Plan Amendment for pH and Turbidity

We understand that a basin plan amendment is in review regarding receiving water pH and turbidity limits that may have an impact on the regulation of discharge to Deuel Drain. To assure that any future modifications are incorporated into the permit, we request that Section V.A.8. and V.A.15 be modified to include the phrase "...or as may be amended in the Basin Plan in the future".

Ultraviolet (UV) Disinfection System Operating Specifications

The Tentative Draft version of the permit includes new provisions in Section VI.C.4.b for operation and monitoring of the UV Disinfection System. These provisions were not present in the preliminary draft version of the permit previously reviewed by CDCR.

Based on our consultant's familiarity of UV systems operating in recycled water applications, it appears that the National Water Research Institute (NWRI) standards were incorrectly cited. A UV dose of 100 mJ/cm² is appropriate for unrestricted reuse recycled water systems following granular or cloth media filtration systems with a UV transmittance of 55 percent. However, the treatment system designed and in construction at DVI follows a membrane treatment system, for which NWRI prescribes a dose of 80 mJ/cm² at a minimum transmittance of 65 percent.

Further, the requirements for "visual" inspection of the lamps apply to an open channel type UV system. Closed vessel UV systems such as the units proposed for DVI rely upon instrumentation, primarily UV intensity meters, to assure the appropriate UV dose is being delivered and that the quartz sleeves are maintained in sufficient condition. Visual inspection is not possible without disassembling the UV reactor, which is not recommended by the UV system manufacturer. Attachment E - Monitoring and Reporting Program, Section IX.C. requires continuous monitoring of flow rate, turbidity, number of UV banks, transmittance, power setting and dose. These parameters are more than sufficient to confirm that the necessary power settings are utilized to account for lamp fouling and age, eliminating a need to visually inspect the lamps at any point between the appropriate maintenance intervals.

Therefore, CDCR requests that Section VI.C.4.b. be revised to delete the requirement for a minimum UV dose of 100 mJ/cm², and replace it with 80 mJ/cm². Further, the minimum transmittance specified under VI.C.4.b.iii. should be increased to 65 percent. Finally, the requirement for visual inspection of the lamps should be deleted, as it is not feasible to do so with closed reactor UV systems, and not necessary due to the instrumentation utilized to monitor delivered dose.

Notification Requirements

Section VI.C.5.e. requires that an electronic notification system be installed within 6 months on any continuous monitoring parameters. The new WWTP, once completed, will comply with the specified notification requirements. The only parameter required to be monitored, before completion of the new WWTP, is flow. The current WWTP has a visual alarm system for significant events which alerts the guard towers to dispatch Plant Operations personnel. In this manner, Plant Operations staff can provide 24/7 coverage of the institution.

Therefore, CDCR requests the requirement for electronic notification be tied to the initiation of operation at the new WWTP and that, in lieu of this requirement, the existing WWTP continue with its existing visual alarm notification system.

CDCR values the great working relationship established between the DVI staff and the RWQCB staff, and thanks you for the opportunity to provide comments on the Tentative Draft Order. If you have any questions or concerns, please feel free to contact myself or Scott Parker of Carollo Engineers (916) 565-4888.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false

information, including the possibility of fine and imprisonment for knowing violations."


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Correctional Plant Manager II

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